

TOLL OPERATIONS FOR TACOMA NARROWS BRIDGE

BRIEFING PAPER

Prepared for the

OCTOBER 2004 TRANSPORTATION COMMISSION MEETING

Prepared By: David Pope, Tacoma Narrows Bridge Toll Systems Manager

Reviewed By: Randy Hain, Olympic Region Administrator

Approved By: John Conrad, Asst. Secretary Engineering and Regional Operations

PURPOSE:

To provide an overview and schedule of toll collection operations for the Tacoma Narrows Bridge.

ACTION/OUTCOME:

Commissioners understanding and support of TNB Toll Operations and future required actions.

BACKGROUND:

1. The Tacoma Narrows Bridge Project staff is preparing for commencement of toll collection operations when the new bridge opens in early 2007. For the first time in over twenty years toll infrastructure financing and toll collection for debt repayment, operations and maintenance will be reintroduced to Western Washington. The TNB Toll Operation is expected to collect and deposit more than \$100,000 per day, more than \$45,000,000 annually and eventually repay debt service of about 1.6 billion dollars over thirty years.
 - a. Major topics to be covered in this briefing include toll system design, electronic and manual toll collection, toll enforcement, the customer experience, transition strategies to move from bridge construction to toll collection, toll operations and maintenance, and traffic and revenue projections.
 - b. RCW 47.46 designates the Transportation Commission as the state toll setting authority and requires tolls for TNB to be set to repay the debt and provide for operations and maintenance.
 - c. Planned schedule. The schedule for toll collection preparation includes significant effort over the next two years. Besides system development, major efforts include marketing, operations planning, agreements with and procedures for outside agencies and facilities

preparation. These and many other activities need to be completed before the first car goes over the new bridge and we need to build the transition staff to accomplish those activities.

2. ***Toll System Development.***

- a. Toll System Milestones. Our toll systems contractor received notice to proceed about the same time as the design/build contractor. Several major milestones are already complete including the Facilities Definition Document that provided toll systems input to the design builder for toll plaza and lane design.
- b. Transponder selection. One of the first major milestones was selection of the specific AVI (Automatic Vehicle Identification or transponder) technology. WSDOT selected the eGo™ transponder for use on the bridge. At the same time, we intend to operate dual readers to allow commercial trucks equipped with CVISN transponders to use their already installed device to link to a TNB toll account.
 - i. Technology selection process. An extensive technology evaluation process was conducted to select transponder technology. TNB staff and a consultant team canvassed stakeholders, compared technologies and looked at life cycle costs to select the best technology.
 - ii. Statewide stakeholders. While there is no “perfect” transponder for all users, TNB will use a newer technology transponder for most users and allow trucks with existing CVISN transponders to use that device to link to a TNB account. Washington State Ferries will also accept TNB transponders.
 - iii. Compatibility. Statewide compatibility, allowing users to pay with only one transponder continues to be the goal of the transponder technology selection.
- c. System Development. TransCore is actively involved in system development with factory testing scheduled for Summer 2005 and installation and testing at the bridge in late 2005, early 2006. Major system functions include.
 - i. Customer service

- ii. Toll Collection
- iii. Enforcement
- iv. Accounting and Audit
- v. Reporting

3. ***Toll Collection – Electronic and Manual.***

- a. ETC – Electronic Toll Collection. A key feature of the TNB toll collection operation will be Electronic Toll Collection (ETC), a system that uses electronic devices to collect tolls at highway speeds. The electronic device is linked to a customer's account, which is automatically debited the amount of the toll. Toll collection is done at highway speed without using cash. ETC offers many advantages over traditional manual collection.
 - i. Non-stop payment
 - ii. Faster traffic flow
- b. Attended lanes. TNB will provide six manual lanes, some of which will be staffed on a twenty-four hour basis. When toll collection begins, we will need all of these lanes to process the maximum possible number of vehicles, particularly during peak traffic periods. The manual toll lanes will provide cash collection for the occasional user, including weekend recreational traffic and offer added services.
 - i. Cash payments, possible Smart card
 - ii. Information, directions

4. ***The Customer Experience.*** WSDOT and TNB are designing systems that allow for easy account opening, available at numerous outlets, on the Internet and by telephone. In addition, we will operate two full time customer service centers for walk-in customers and on weekends and for special events operate a mobile service outlet. Customer privacy is a key issue, so we will collect only the minimum data necessary from customers to properly identify them, and to correctly charge their account. Access to customer account and travel data will be secure and data transmissions over unsecured medium will be encrypted.

- a. Electronic Toll accounts. TNB will make account opening and recharging as easy as possible. About six months before toll collection begins, we will open our customer service telephone center to answer questions and process applications. The goal is to get as many

transponders in the hands of customers, particularly regular customers as possible.

- i. Web, phone, retail outlets
- ii. Easy signup
- iii. Minimum collection of personal data – NEED license plate number
- iv. Public education and marketing

b. Paying tolls. Customer accounts may be opened with cash or a credit card. Tolls will be deducted by each transaction. A small deposit may be required for each transponder. For customers who sign up for automatic recharge, the deposit may be waived.

- i. Debit system
- ii. Automatic account recharge
- iii. Agency-wide and statewide look and feel

5. ***Toll Enforcement.*** While ETC is much more convenient for the paying toll customer, it's also easier for those who choose not to pay the toll. Toll payment enforcement is particularly required in the non-stop lanes. Overhead cameras will capture a photo of the non-paying vehicle and a bill will be sent to the registered owner.

- a. ETC allows for non-stop travel but requires enforcement
- b. TNB plans for initial administrative process
- c. Photo enforcement passed by 2004 legislature
- d. Inter-agency agreements needed
- e. Administrative Code rules for enforcement to be complete 2005

6. ***Planning for Toll Commencement.*** Toll Operations and Maintenance oversight is a new organization that will begin in July 2005. Toll commencement planning requires a significant effort to set up positions, identify facilities and resources, establish operational procedures with the operator, establish toll business rules, establish Washington Administrative Code (WAC) rules and manage a major marketing effort to pre-distribute

transponders. In addition, this new organization needs to provide input to the citizens advisory committee on toll rates, manage the traffic and revenue updates and recommend a toll rate schedule to the commission.

- a. Currently TNB project staff
- b. Phased hiring of new staff
- c. Long term operations will include maintenance of the new facilities, incident response, security and enforcement, insurance, and renewal and replacement costs for the new bridge

7. ***Traffic and Revenue.*** Traffic is expected to be steady throughout the day with the peak hours in the morning (Eastbound). Current plans set a \$3.00 toll for all vehicles upon opening with regular scheduled increases to \$6.00. Revenue collected will be about \$45 million per year and debt will be repaid over a twenty plus year period. An updated traffic and revenue study was completed prior to the first bond sale and the current schedule calls for another update to be completed prior to toll commencement. We will need to monitor traffic and revenue closely, particularly during the first few critical years to ensure that we are collecting enough revenue to repay the debt and maintain the facility as required by law. WSDOT operations staff will provide regular updates and recommendations to the commission in sufficient time to adjust toll rates as necessary.

- a. Current update complete 2005
- b. Consultant will certify toll schedule
- c. Continue to monitor

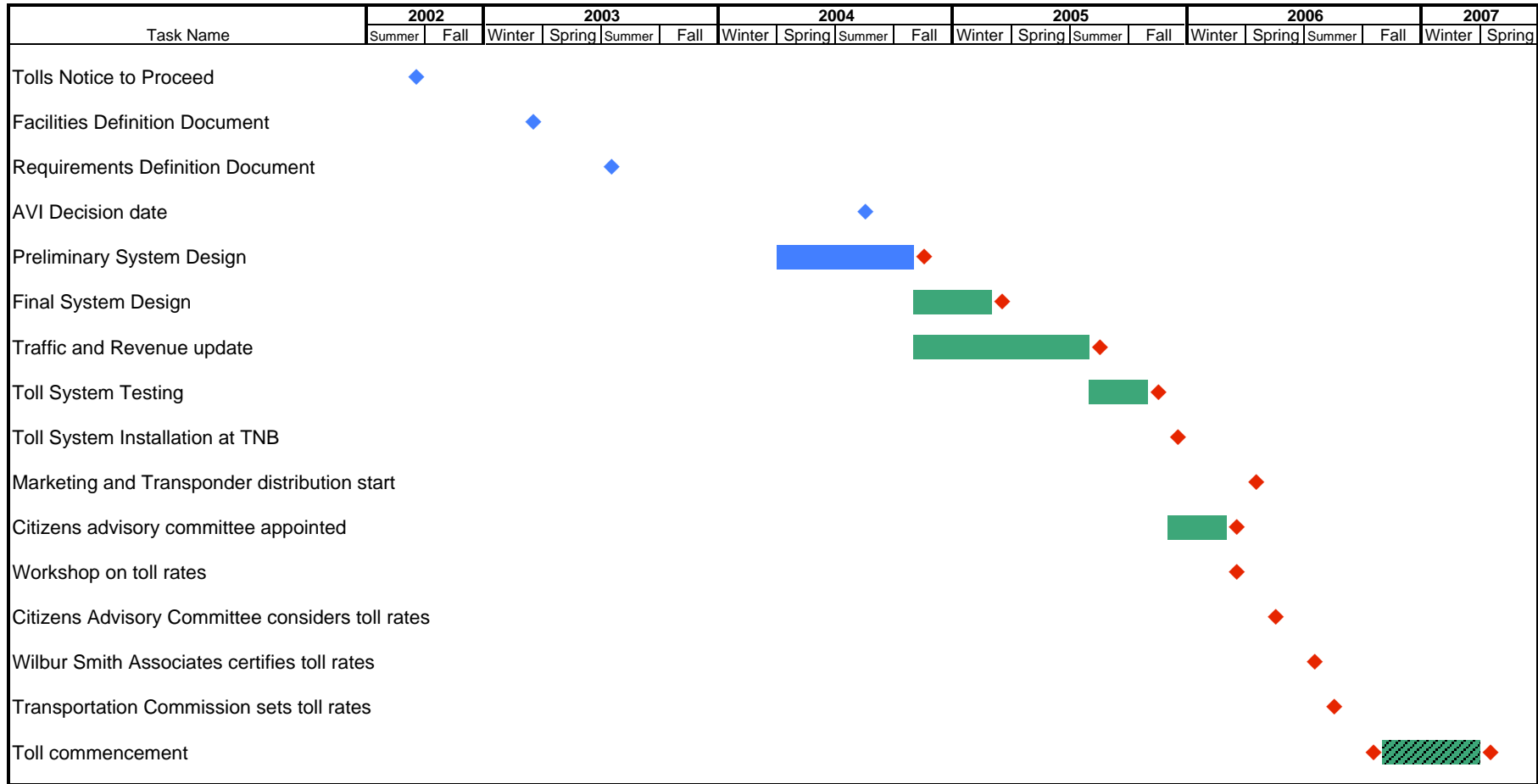
8. ***Schedule.*** (attached)

RECOMMENDATION:

While there will be an opportunity for the Commissioners to ask questions, no action is required at this time.

For further information, contact: David Pope, Tacoma Narrows Bridge Toll Systems Manager, 253-534-4673.

Tacoma Narrows Bridge Project Toll Operations Schedule



Legend: Process Underway Completed Milestone Process to be undertaken Future Milestone